

Amendments to the Specification:

Please replace the paragraph beginning at page 1, line 8 with the following rewritten paragraph:

B1 In digital communications, i.e., during the exchange of digital data, it is frequently desirable to protect various aspects of transmission of the electronic data.

A very significant aspect is the protection of the digital data to be transmitted against unauthorized modification.

Please replace the paragraph beginning at page 4 of the Amendment "A" prior to action:

B2 The object of the invention is also achieved with a second arrangement that checks a predetermined first commutative checksum allocated to digital data grouped into a number of data segments, that has an arithmetic and logic unit, an inverse cryptographic operation to form a first commutative ~~cryptographic~~ checksum from a cryptographic commutative checksum formed by a cryptographic operation, a second segment checksum which is formed for each data segment, a commutative operation that operates on the second segment checksums which forms a second commutative checksum, and a comparator which checks for a match between the second commutative checksum and the first commutative checksum.

Please replace the paragraph beginning on page 5, line 20 to read as follows:

B3 The result of this further development is that the cryptographic security of the data is considerably increased. A cryptographic operation in this sense is, for example, the encrypting of the first commutative checksum with a symmetric or also with an asymmetric ~~assymetrie~~ encryption method which forms a cryptographic checksum. On the receiver side, the inverse cryptographic method to the cryptographic method is then performed ~~in order to ensure cryptographic security~~.

Please replace the paragraph beginning on page 10, line 10 to read as follows:

B4 Both the method for forming the checksum and the method for checking a checksum can be performed either independently of one another, or performed jointly. However, the method for forming the checksum and the method for checking the checksum can also be performed jointly.